

REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office action dated December 27, 2002 are respectfully requested. Applicants petition the Commissioner for a 1-month extension of time. A separate petition accompanies this amendment.

I. Amendments

Claims 1-12 and 14 stand cancelled.

New claims 21-25 find support in original claim 1. Support for hybridization conditions is found, at least, on page 10, lines 22-30.

New claim 26 finds support in original claim 8.

New claim 27 finds support in original claim 9.

New claims 28 and 29 find support on page 7, lines 32-34 and methods of transforming a host cell with a vector are found on page 27, line 1 through page 28, line 3.

New claims 30 and 31 find support in original claims 10 and 11.

New claim 32 finds support in original claim 12.

By these amendments, no new subject matter has been added.

II. Rejection under 35 U.S.C. §112, first paragraph

Claims 1-12, and 14 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 1-12, and 14 were also rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and use the invention without undue experimentation.

These rejections are respectfully traversed.

A. Written Description

New claims 21-32 provide the precise structure and function for the recited nucleic acid in the possession of the inventors at the time the invention was made. The structure of SEQ ID NO: 1 and 2 are set forth in the specification along with the function of the protein encoded by SEQ ID NO: 2 (see page 14, lines 10-30). Further, claims 22 and 24 recite an isolated nucleic acid that hybridizes the complement of SEQ ID NO: 1 under high stringency conditions and encodes a functional protein. Hybridization techniques using a known DNA probe under high stringency conditions are known to one of skill in the art. Applicants further direct the Examiner to page 10, lines 22-30 where the specification provides guidance for determining hybridization.

Accordingly, newly added claims 21-32 meet the Written Description requirement of 35 U.S.C. §112.

B. Enablement

The Examiner states that the specification is enabled for "a nucleic acid of SEQ ID NO:1, a nucleic acid encoding SEQ ID NO:2, and the fragment of SEQ ID NO:1 exemplified in the vector pAG4225, as well as for plant expression vectors, plant cells and plants comprising said nucleic acids" (paragraph bridging pages 4 and 5 of Office action mailed December 27, 2002). Accordingly, claims 21, 23, 24, and 26-32 (pertaining to claims 21, 23, and 24) are enabled according to the Examiner's statement.

The remaining claims address isolated nucleic acid sequences with a high degree of structural and functional similarity to SEQ ID NO: 1. Methods of making and using such sequences are known to one of skill in the art. Further, a comparison of the melon CTR1 protein to Arabidopsis CTR1 and tomato CTR1 proteins is described on page 16, lines 23-35. According to this comparison, the amino acid sequences of the CTR1 proteins have 62% and 58% sequence homology, however, function similarly. The comparison further shows significant conservation in the putative kinase encoding region. The predicted kinase domain of the melon CTR1 protein and nucleotide is described on page 17, lines 4-9. Methods of preparing variants of the melon CTR1

protein and nucleotide and functional changes are described on page 17, line 26 through page 18, line 13 and on page 18, line 29 through page 19, line 19.

The Examiner also raised an issue on page 6 of the Office Action questioning which nucleotides of 1440-1444 constitutes nucleotide A. Applicants respectfully direct the Examiner to page 15, line 23 where A is described as any one of nucleotides 1440-1440 and that nucleotides 1440-1443 represent a start codon.

Accordingly, newly added claims 21-32 meet the Enablement requirement of 35 U.S.C. §112.

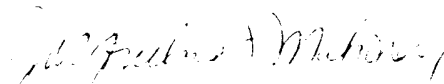
In view of the foregoing, Applicants submit that the amended claims and specification comply with the requirements of 35 U.S.C. §112, first paragraph. Withdrawal of the rejections under 35 U.S.C. § 112, first paragraph is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants submit that the claims pending in the application are in condition for Allowance. A Notice of Allowance is therefore respectfully requested.

The Examiner is invited to contact Applicants' representative at (650) 838-4410 if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,


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